AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

1. (Currently Amended) A method of adjusting time recordation, comprising:

sending a first message from a device to a first processor, different from the device, that maintains a first time;

sending a second message to a second processor that maintains a second time;

recording the first time when the first processor receives the first message, as a first recorded time;

recording the second time when the second processor receives the second message, as a second recorded time;

sending a third message from the first processor to the second processor;

sending a fourth message from the second processor to the first processor including information indicative of the second recorded time; and

setting the first time of the first processor based at least in part on the sum of the second recorded time and a roundtrip time for the third and fourth messages.

2. (original) The method of claim 1 where the first processor and second processor are coupled by an asymmetric communication medium.

3. (original) The method of claim 1 where the first processor and second processor are coupled by an asymmetric digital subscriber line.

4. (original) The method of claim 1 where sending a first message to a first processor that maintains a first time and sending a second message to a second processor that maintains a second time are separated by a predictable amount of time.

5. (original) The method of claim 1 where the third message includes an identification of the first message and further comprising:

upon receipt of the third message, matching the identification of the first message with an identification of the second message.

6. (previously presented) The method of claim 1, further comprising:

sending a fifth message to the first processor;

sending a sixth message to the second processor;

recording the first time when the first processor receives the fifth message, as a third recorded time;

recording the second time when the second processor receives the sixth message, as a fourth recorded time;

sending a seventh message from the first processor to the second processor including information indicative of the third recorded time; and

sending an eighth message from the second processor to the first processor including a correction based at least in part at least in part on the third and fourth recorded times.

7. (previously presented) The method of claim 1, further comprising:

sending a fifth message to the first processor;

sending a sixth message to the second processor;

recording the first time when the first processor receives the fifth message, as a third recorded time;

recording the second time when the second processor receives the sixth message, as a fourth recorded time;

sending a seventh message from the first processor to the second processor including information indicative of the third recorded time;

sending an eighth message from the second processor to the first processor including information indicative of the fourth recorded time; and

calculating a correction based at least in part at least in part on the third and fourth recorded times.

8. (original) The method of claim 7 further comprising:

applying the correction to the first time a plurality of times at a regular interval.

9. (original) The method of claim 1 where the first processor is located remotely from the second processor.

10. (original) The method of claim 9 where the first processor is located in a wellbore and the second processor is located at the surface.

11. (original) The method of claim 10 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.

12. (original) The method of claim 1 where the roundtrip time for the third and fourth messages is an amount of time from the sending of the third message to the receipt of the fourth message.

13. (currently amended) A method of adjusting time recordation, comprising:

sending a first message from a device to a first processor, different from the device, that maintains a first time;

sending a second message to a second processor that maintains a second time;

recording the first time when the first processor receives the first message, as a first recorded time;

recording the second time when the second processor receives the second message, as a second recorded time;

sending a third message from the second processor to the first processor including data based at least in part on the second recorded time; and

adjusting the first time based on a correction that is based at least in part on the data and the first recorded time.

14. (previously presented) The method of claim 13 where the data is the second recorded time.

15. (original) The method of claim 13 where the data is equal to the correction.

16. (original) The method of claim 13 where sending a first message to a first processor that maintains a first time and sending a second message to a second processor that maintains a second time are separated by a predictable amount of time.

17. (previously presented) The method of claim 13 where the third message includes an identification of the second message and further comprising:

upon receipt of the third message, matching the identification of the second message with an identification of the first message.

18. (original) The method of claim 13 where the first processor and second processor are coupled by an asymmetric communication medium.

19. (original) The method of claim 13 where the first processor and second processor are coupled by an asymmetric digital subscriber line.

20. (original) The method of claim 13 where adjusting the first time occurs at regular intervals.

21. (original) The method of claim 13 where the first processor is located remotely from the second processor.

22. (original) The method of claim 21 where the first processor is located in a wellbore and the second processor is located at the surface.

23. (original) The method of claim 22 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.

24. (original) The method of claim 13 where adjusting the first time includes moving the first time forward or backward by an amount and, after a predetermined time, moving it forward or backward by the same amount again.

25. (currently amended) A computer program, stored on a tangible storage medium, for adjusting time recordation, the program including executable instructions that cause one or more computers to:

send a first message from a device to a first processor, different from the device, that maintains a first time;

send a second message to a second processor that maintains a second time;

record the first time when the first processor receives the first message, as a first recorded time;

record the second time when the second processor receives the second message, as a second recorded time;

send a third message from the first processor to the second processor;

send a fourth message from the second processor to the first processor including information indicative of the second recorded time; and

set the first time of the first processor based at least in part on the sum of the second recorded time and the roundtrip time for the third and fourth messages.

26. (original) The computer program of claim 25 where the first processor and second processor are coupled by an asymmetric communication medium.

27. (original) The computer program of claim 25 where the first processor and second processor are coupled by an asymmetric digital subscriber line.

28. (original) The computer program of claim 25 where the one or more computers are caused to send a first message to a first processor that maintains a first time and send a second message to a second processor that maintains a second time within a predictable amount of time.

29. (original) The computer program of claim 25 where the third message includes an identification of the first message and further including executable instructions that cause one or more computers to:

upon receipt of the third message, match the identification of the first message with an identification of the second message.

30. (previously presented) The computer program of claim 25 further including executable instructions that cause one or more computers to:

send a fifth message to the first processor;

send a sixth message to the second processor;

record the first time when the first processor receives the fifth message, as a third recorded time;

record the second time when the second processor receives the sixth message, as a fourth recorded time;

send a seventh message from the first processor to the second processor including information indicative of the third recorded time; and

send an eighth message from the second processor to the first processor including a correction based at least in part on the third and fourth recorded times.

31. (previously presented) The computer program of claim 25 further including executable instructions that cause one or more computers to:

send a fifth message to the first processor;

send a sixth message to the second processor;

record the first time when the first processor receives the fifth message, as a third recorded time;

record the second time when the second processor receives the sixth message, as a fourth recorded time;

send a seventh message from the first processor to the second processor including information indicative of the third recorded time;

send an eighth message from the second processor to the first processor including information indicative of the fourth recorded time; and

calculate a correction based at least in part on the third and fourth recorded times.

32. (original) The computer program of claim 31 further including executable instructions that cause one or more computers to:

apply the correction to the first time a plurality of times at a regular interval.

33. (original) The computer program of claim 25 where the first processor is located remotely from the second processor.

34. (original) The computer program of claim 33 where the first processor is located in a wellbore and the second processor is located at the surface.

35. (original) The computer program of claim 34 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.

36. (currently amended) A computer program, stored on a tangible storage medium, for adjusting time recordation, the program including executable instructions that cause one or more computers to:

send a first message from a device to a first processor, different from the device, that maintains a first time;

send a second message to a second processor that maintains a second time;

record the first time when the first processor receives the first message, as a first recorded time;

record the second time when the second processor receives the second message, as a second recorded time;

send a third message from the second processor to the first processor including data based at least in part on the second recorded time; and

adjust the first time based on a correction that is based at least in part on the data and the first recorded time.

37. (previously presented) The computer program of claim 36 where the data is the second recorded time.

38. (original) The computer program of claim 36 where the data is equal to the correction.

39. (original) The computer program of claim 36 where the one or more computers are caused to send a first message to a first processor that maintains a first time and send a second message to a second processor that maintains a second time within a predictable amount of time.

40. (previously presented) The computer program of claim 36 where the third message includes an identification of the second message and further including executable instructions that cause one or more computers to:

upon receipt of the third message, match an identification of the first message with the identification of the second message.

41. (original) The computer program of claim 36 where the first processor and second processor are

coupled by an asymmetric communication medium.

42. (original) The computer program of claim 36 where the first processor and second processor are coupled by an asymmetric digital subscriber line.

43. (original) The computer program of claim 36 where adjusting the first time occurs at regular intervals.

44. (original) The computer program of claim 36 where the first processor is located remotely from the second processor.

45. (original) The computer program of claim 44 where the first processor is located in a wellbore and the second processor is located at the surface.

46. (original) The computer program of claim 45 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.

47. (currently amended) A system, comprising:

a first processor that maintains a first time;

a communication medium coupled to the first processor; and

a second processor that maintains a second time coupled to the communications medium;

where

the first processor is adapted to receive a first message from a device different from the first processor;

the second processor is adapted to receive a second message;

the first time is recorded when the first processor receives the first message, as a first recorded time;

the second time is recorded when the second processor receives the second message, as a second recorded time;

the first processor is adapted to send a third message to the second processor;

the second processor is adapted to send a fourth message to the first processor including information indicative of the second recorded time; and

the first time is set based at least in part on the sum of the second recorded time and the roundtrip time for the third and fourth messages.

48. (original) The system of claim 47 where the communication medium is asymmetric.

49. (original) The system of claim 47 where the communication medium is an asymmetric digital subscriber line.

50. (original) The system of claim 47 where the first and second messages are received a predictable amount of time apart.

51. (original) The system of claim 47 where the third message includes an identification of the first message and the second processor is adapted to, upon receipt of the third message, match the identification of the first message with an identification of the second message.

52. (previously presented) The system of claim 47 where:

the first processor is adapted to receive a fifth message;

the second processor is adapted to receive a sixth message;

the first time is recorded when the first processor receives the fifth message, as a third recorded time;

the second time is recorded when the second processor receives the sixth message, as a fourth recorded time;

the first processor is adapted to send a seventh message to the second processor including information indicative of the third recorded time; and

the second processor is adapted to send an eighth message to the first processor including a correction based at least in part on the third and fourth recorded times.

53. (previously presented) The system of claim 47 where:

the first processor is adapted to receive a fifth message;

the second processor is adapted to receive a sixth message;

the first time is recorded when the first processor receives the fifth message, as a third recorded time;

the second time is recorded when the second processor receives the sixth message, as a fourth recorded time;

the first processor is adapted to send a seventh message to the second processor including information indicative of the third recorded time;

the second processor is adapted to send an eighth message to the first processor including information indicative of the fourth recorded time; and

the first processor is adapted to calculate a correction based at least in part on the third and fourth recorded times.

54. (original) The system of claim 53 where:

the first processor applies the correction to the first time a plurality of times at a regular interval.

55. (original) The system of claim 47 where the first processor is located remotely from the second processor.

56. (original) The system of claim 55 where the first processor is located in a wellbore and the second processor is located at the surface.

57. (original) The system of claim 56 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.

58. (currently amended) A system, comprising:

a first processor that maintains a first time;

a communication medium coupled to the first processor; and

a second processor that maintains a second time coupled to the communications medium;

where

the first processor is adapted to receive a first message <u>from a device different from the first processor;</u>

the second processor is adapted to receive a second message;

the first time is recorded when the first processor receives the first message, as a first recorded time;

the second time is recorded when the second processor receives the second message, as a second recorded time;

the second processor is adapted to send a fourth message to the first processor including data based at least in part on the second recorded time; and

the first time is adjusted based on a correction that is based at least in part on the data and the first recorded time.

59. (previously presented) The computer system of claim 58 where the data is the second recorded time.

60. (original) The computer system of claim 58 where the data is equal to the correction.

61. (original) The computer system of claim 58 where the first and second messages are received a predictable amount of time apart.

62. (original) The computer system of claim 58 where the fourth message includes an identification of the second message and the second processor is adapted to, upon receipt of the fourth message, match an identification of the first message with the identification of the second message.

63. (original) The computer system of claim 58 where the communication medium is asymmetric.

64. (original) The computer system of claim 58 where the communication medium is an asymmetric digital subscriber line.

65. (original) The computer system of claim 58 where adjusting the first time occurs at regular intervals.

66. (original) The computer system of claim 58 where the first processor is located remotely from the second processor.

67. (original) The computer system of claim 66 where the first processor is located in a wellbore and the second processor is located at the surface.

68. (original) The computer system of claim 67 where the first processor is coupled by a network to a plurality of tools that send time-based measurements to the second processor.